6HG5

Beam Power Tube

7-PIN MINIATURE TYPE
CONTROLLED CATHODE WARM-UP TIME MINIMIZES EXTRANEOUS SOUND DURING RECEIVER WARM UP.

For Use in the Audio Output Stages of Television Receivers

Electrical:

Heater Characteristics and Ratings:		
Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	0.450	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200[a] max.	volts
Minimum Cathode Warm-up Time:[b]		
Heater volts = 6.3, plate and grid-No.2 volts = 250, and cathode resistor (ohms) = 680	14	sec
Direct Interelectrode Capacitances (Approx.):		
G1 to P	0.4	pf
Input: G1 to (K+G3,G2,H)	8.0	pf
Output: P to (K+G3,G2,H)	8.5	pf

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding Tip)	2" ±3/32"
Diameter	0.650" to 0.750"
Dimensional Outline	See *General Section*
Bulb	T5-1/2
Base	Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW	7BZ

Pin 1 - Grid No.1
Pin 2 - Cathode, Grid No.3
Pin 3 - Heater
Pin 4 - Heater
Pin 5 - Plate
Pin 6 - Grid No.2
Pin 7 - Grid No.1

AMPLIFIER — Class A_1

Maximum Ratings, *Design-Maximum Values:*

Plate Voltage	275 max.	volts
Grid-No.2 (Screen-Grid) Voltage	275 max.	volts
Grid-No.2 Input	2 max.	watts

Plate Dissipation	12 max.		watts
Bulb Temperature (At hottest point on bulb surface)	250 max.		°C

Typical Operation and Characteristics:

Plate Voltage	180	250	volts
Grid-No.2 Voltage	180	250	volts
Grid-No.1 (Control-Grid) Voltage	-8.5	-12.5	volts
Peak AF Grid-No.1 Voltage	8.5	12.5	volts
Zero-Signal Plate Current	29	45	ma
Max.-Signal Plate Current	30	47	ma
Zero-Signal Grid-No.2 Current	3	4.5	ma
Max.-Signal Grid-No.2 Current	4	7	ma
Plate Resistance (Approx.)	58000	52000	ohms
Transconductance	3700	4100	μmhos
Load Resistance	5500	5000	ohms
Total Harmonic Distortion	8	8	%
Max.-Signal Power Output	2	4.5	watts

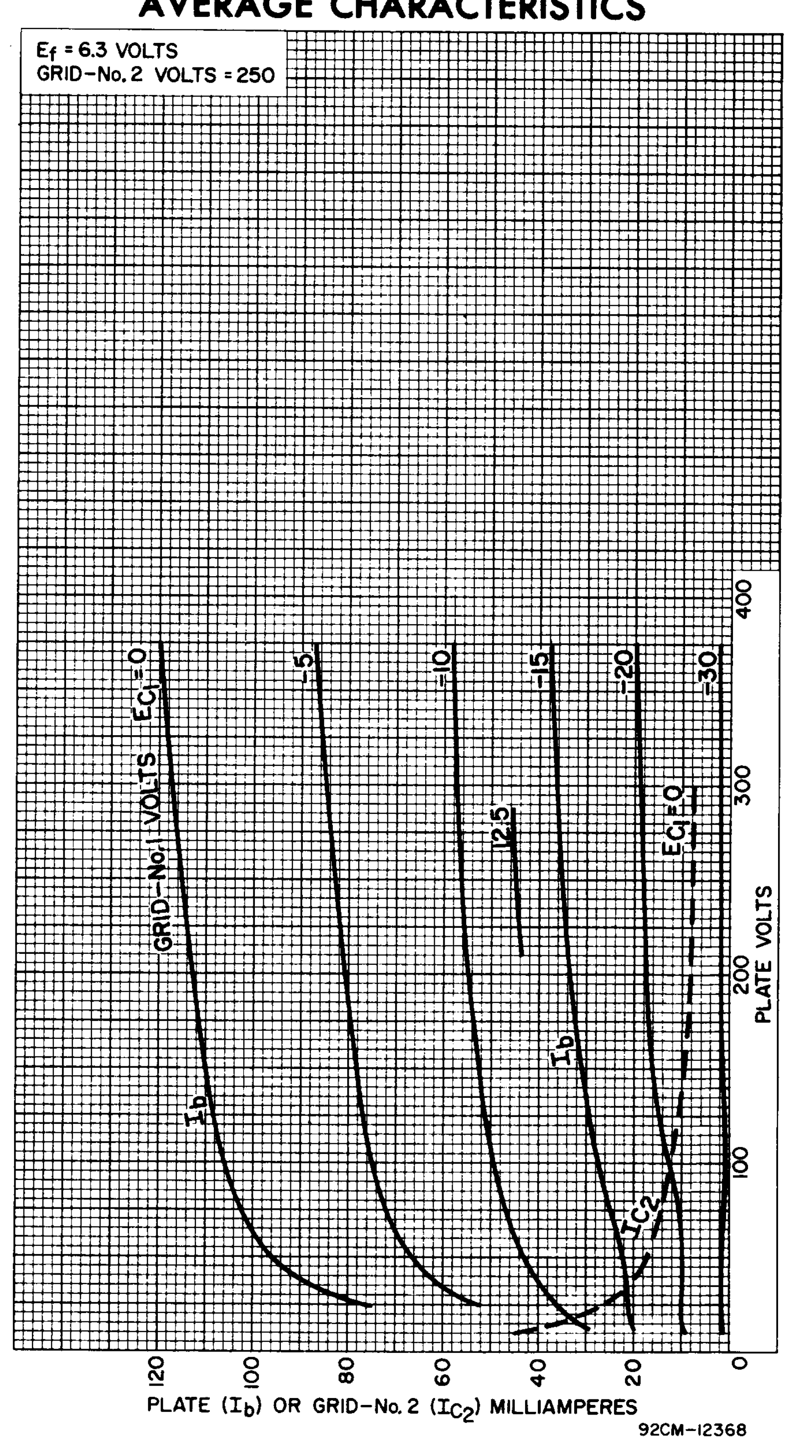
Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

[a] The dc component must not exceed 100 volts.

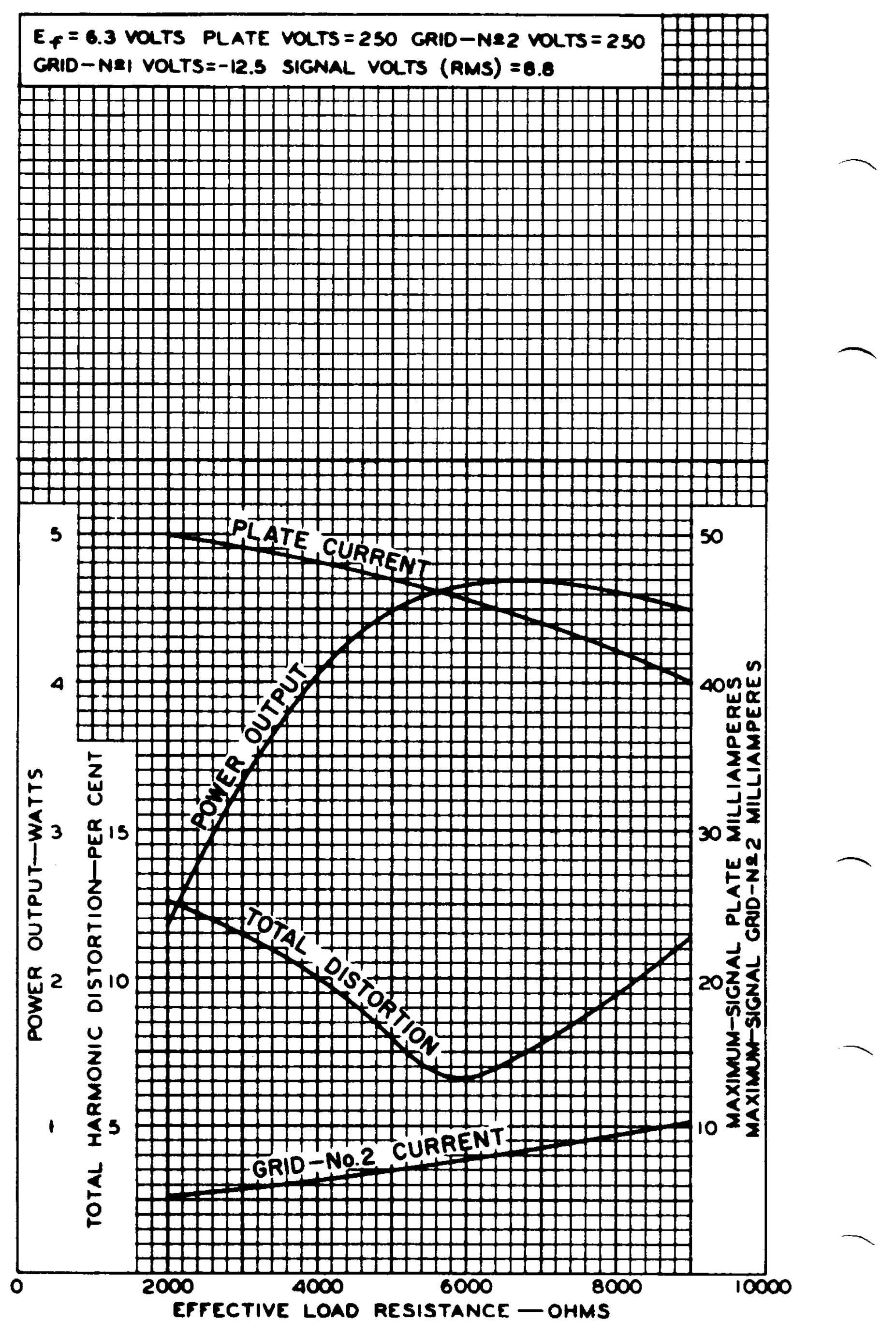
[b] The time interval between the instant all electrode voltages are applied and the instant a current of one milliampere flows in the plate circuit of the 6HG5.

AVERAGE CHARACTERISTICS



6HG5

OPERATION CHARACTERISTICS



92CM-6339R2